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## (54) Seismic noise filtering method

A method for filtering noise from discrete noisy seismic signals in a time interval ([1, ..., T]) is provided said method comprising the steps of

- using said noisy seismic signals for determining at least one reference channel (x(t)) for said time interval as an estimate of said noise;

- determining coefficients for M temporally local filters (w(i,t)), said filters forming a filter bank, and M being a number equal to or larger than two, by minimizing a cost function (J(t)) representing a measure of the error of the output of said filter bank; and

- applying said filter bank to said at least one estimate (x(t)) to determine M filtered estimates of said noise. The filtered estimates are multiplied with temporal windows (h(i,t)).

